

ABSTRACT OF THE DISCLOSURE

In a roller chain, the outside diameters D of the rollers and the outside diameters d of the pins extending through bushings on which the rollers are disposed satisfy the relationships $0.72P \leq D \leq 0.79P$ and $0.40P \leq d \leq 0.44P$ where P is the pitch of the roller chain. The height H of the inner plates of the chain satisfies the relationship $0.96P \leq H$. The elongation ratio of the chain is significantly reduced, and improvements in breaking strength of the pin and in the rotational fatigue of the chain are realized. Consequently wear resistance, strength, and endurance of the chain are significantly improved, making the chain suitable for use as a timing chain in an engine that rotates at high speed.